

Claims

What is claimed is:

- 5 1. A sensor system, comprising:  
a sensor to sense a biological indicator;  
a protective member located adjacent the sensor to shield the sensor from a surrounding  
environment for a selectable time period.
- 10 2. The sensor system of Claim 1, and further including a control circuit coupled to the  
protective member to disable the protective member after the selectable time period.
3. The sensor system of Claim 2, wherein the protective member is formed of biocompatible  
metal.
- 15 4. The sensor system of Claim 2, wherein the protective member is formed of erodible  
polymer gel.
5. The sensor system of Claim 1, wherein the protective member is formed of a material that  
20 substantially dissolves within a living body over the selectable time period
6. The sensor system of Claim 2, wherein the control circuit includes a cathode and an  
anode to cause a current to flow through the protective member.
- 25 7. The sensor system of Claim 2, and further including multiple sensors, each associated  
with a protective member, and wherein the control circuit includes a circuit capable of selectively  
disabling one or more of the protective members.
8. The sensor system of Claim 7, wherein the control circuit includes a processing circuit to  
30 determine when operation of any of the multiple sensors is degrading.
9. The sensor system of Claim 8, wherein the control circuit includes an alarm to provide an  
indication to a user based on signals provided by one or more of the multiple sensors.

-15-

10. The sensor system of Claim 7, wherein the multiple sensors are each glucose sensors.
11. A system for sensing a biological agent, comprising:  
at least two sensors; and  
5 at least two protective members, each being associated with a respective one of the sensors to prevent the respective sensor from interacting with a surrounding environment.
12. The system of Claim 11, and further including a control circuit to disable one or more selected ones of the at least two protective members, whereby one or more respective sensors are  
10 activated to interact with the surrounding environment.
13. The system of Claim 10, wherein the control circuit includes a processing circuit to process sensor signals provided by the one or more activated sensors.
14. The system of Claim 13, wherein the processing circuit includes means to discard one or  
15 more of the sensor signals prior to processing remaining sensor signals.
15. The system of Claim 13, and further including a therapy delivery system coupled to the control circuit to provide therapy to a patient based on the sensor signals.
- 20 16. The system of Claim 15, wherein the therapy delivery system includes a drug pump.
17. The system of Claim 15, wherein the therapy delivery system includes a circuit to deliver electrical stimulation to a patient.
- 25 18. The system of Claim 13, wherein the control circuit includes a circuit to obtained the sensor signals in a time-multiplexed manner.
19. A method of sensing signals in a living body, comprising:  
30 a.) providing a sensor;  
b.) providing a protective member to prevent the sensor from interacting with the living body;  
c.) selectively disabling the protective member; and  
d.) obtaining at least one signal from the sensor.

-16-

20. The method of Claim 19, wherein step c.) includes using an electrical current to cause the protective member to dissipate.

5 21. The method of Claim 19, wherein step b.) includes providing a protective member that is dissolvable within the living body within a predetermined period of time, and step c.) includes exposing the protective member to the living body.

10 22. The method of Claim 19, and further comprising:  
providing multiple sensors;  
providing multiple protective members; and  
disabling at least one of the multiple protective members to activate a selected one or more of the multiple sensors.

15 23. The method of Claim 22, wherein step d.) includes obtaining multiple signals from activated ones of the multiple sensors.

24. The method of Claim 23, and further including processing the multiple signals.

20 25. The method of Claim 24, and further including discarding selected ones of the multiple signals that are determined to be outside of a pre-defined signal range.

26. The method of Claim 24, and further including determining that one or more of the multiple sensors are becoming degraded based on the multiple signals.

25 27. The method of Claim 26, and further including disabling at least one additional one of the multiple protective members to activate a selected one or more additional ones of the multiple sensors to replace sensors becoming degraded.

30 28. The method of Claim 23, wherein obtaining the multiple signals includes receiving signals from the activated ones of the multiple sensors in a time-multiplexed manner.

29. The method of Claim 19, and further including providing therapy to the living body based on the at least one signal.

-17-

30. The method of Claim 29, wherein the sensor is a glucose sensor, and providing therapy includes delivering insulin to the living body.

5

2025-07-23 10:00:00